Teaching Nutrition through Math, Science, Language Arts and Health Enhancement

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Meet the

A Grade Level: Fifth Lesson Time: 50 Minutes

Integrated Subject Areas: Science and Health Enhancement

Montana Content Standard: Science 2: Students, through the inquiry process, demonstrate knowledge of properties, forms, changes and interactions of physical and chemical systems. Science 3: Students, through the inquiry process, demonstrate knowledge of characteristics, structures and function of living things, the process and diversity of life, and how living organisms interact with each other and their environment.

Montana Content Standard: Health Enhancement 1: Students have a basic knowledge and understanding of concepts that promote comprehensive health.

Objectives: Students will identify the five food groups and list foods within each group; identify and list a health benefit and key nutrient for each food group; recognize nutrient needs related to growth and body shape diversity.

## Lesson/Activity

- 1. The body needs more that 50 nutrients each day. Ask the students how they can ensure their body gets those nutrients each day. The answer is to eat a variety from all food groups. This lesson reviews the health benefits of power (healthiest) foods within each group.
- 2. Ask the students to work with a partner and distribute the Meet The Power Foods work sheet to each pair. Power foods are the "Go" (healthiest) foods within the five food groups. Ask the students to complete the table on the work sheet. They may use www.choosemyplate.gov to help determine some of the answers. Go through the work sheet and review the answers using the Power Foods Answer Sheet.
- 3. Have students do the What's in Each Food Group section by putting a checkmark by the foods they eat and fill in the blanks with additional foods. If you want to reinforce the Go, Slow and Whoa food concept, have them put a G, S, or W by the foods they checked or wrote in.
- 4. While they are completing the work sheet write the following question on the board: "Eating healthy foods helps your body grow because: A) the more you eat the taller you will be; B) junk food stunts your growth; C) healthy foods contain the building blocks for growth; D) healthy foods don't contain any sugar."
- 5. Ask the students why these Power Foods are so important. Answers may include that they help you stay healthy, be better students and athletes, look and feel great, or grow and be strong. Remind them that it is recommended to have balanced meals which include at least three of the five food groups and healthy snacks with two food groups. As a class, plan a lunch meal to review this concept.
- Direct the children to the question on the board. Ask all of the students to stand up. If they think the answer is "A," they should pretend to shoot baskets; if they think the answer is "B" they should do knee bends; if they think the answer is "C" they should run in place with high knees; and if they think the answer is "D" they should do jumping jacks. The whole class should be doing this at the same time for one minute. After one minute, tell them that the answer is "C." Have everyone choose any of the four activities to do for another minute. Discuss the answer.

#### Materials Needed:

- A copy of MyPlate poster
- A copy of a worksheet for each pair of students: Meet The Power Foods, and Connect The Dots
- Teacher reference handout: My Plate at Home!, Nifty Nutrients handout (from grade 3 lessons) and answer sheets for both worksheets.
- www.choosemyplate.gov

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- 7. Explain that now that we know about the power foods, we also need to remember that our bodies come in all different shapes and sizes. This is normal and we need to accept body differences. Key points are:
  - A) Children grow at different rates. Some children grow more quickly and then slow down, while others grow more gradually.
  - B) Girls start changing between the ages of 9-13 and often reach their grown-up height before boys. During this growth time they can gain 15-55 pounds and grow 2-10 inches.
  - C) Boys start changing about age 10-15 and can continue to grow until their early twenties. During this growth time they can gain 15-65 pounds and grow 4-12 inches.
  - D) There is no single size, shape, or growth pattern for everyone. Even children from the same families can grow differently or have different body shapes or sizes.
- 8. Point out that even though our bodies are different we can make a choice to make it the best and healthiest it can be. Ask the students to give examples of habits or steps they can do to be the best they can be. Answers may include eating a variety of foods, choosing power foods, limiting the "whoa" foods, drinking plenty of water, getting physical activity every day, or getting enough sleep or rest. If time permits ask the student pairs to come up with the benefits they will gain if they make the choice to take care of their bodies. Have students write their answers on the board or stand up and share with the class.
- 9. Close the lesson by reminding the students of the importance of eating power foods and getting regular physical activity or playing every day to stay healthy, smart and strong.
- 10. As an assessment tool for this lesson, distribute a copy of the Connect the Dots work sheet to each student, review the directions and ask the students to complete it as a homework assignment. Each child will need to have five different colored markers or crayons to complete this assignment. Collect and correct the work sheets and review the answers with the students in class the next day.



# Outcome Goals

Students will be able to list the five food groups, foods in those groups, and the health benefits of each group. Students will recognize differences in body shape and size along with growth and development patterns.

# Extending the Lesson

To make a connection to Language Arts, distribute a copy of the poem, Terry the Tadpole Learns Tools for Change to each student. As a homework assignment, have them read it and list three key points that they learned from it. On the following day, read it together as a class and discuss the points in class. Key points to stress: Change is natural, we cannot prevent it. Everyone grows in different ways (height, weight, body parts i.e., foot size). Ask the students if they relate to Terry's feelings about going through the "in between" changes with their bodies? What can the students learn from Terry on how to feel good about the changes?

# Eat Smart Be Smart

### Acknowledgments/Adapted From

<u>Choose Well</u> by Cattlemen's Beef Association; <u>Good For You</u> by Connie Evers, MS, RD; <u>Healthy</u> <u>Body Image</u> Curriculum by Kathy Kater; Dairy Council of California and Denise Zimmer, RD